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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/089,153	09/04/2002	Robert E Nordon	4137-9	2271

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ARLINGTON, VA 22201-4714

EXAMINER
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SRIVASTAVA, KAILASH C

ART UNIT	PAPER NUMBER
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1651

DATE MAILED: 03/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/089,153

Applicant(s)

NORDON, ROBERT E

Examiner

Dr. Kailash C. Srivastava

Art Unit

1651

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 March 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-70 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-70 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. Applicant's Preliminary amendment filed 27 March 2002 is acknowledged and entered.
2. Note that the correct Serial Number of your Application under prosecution at USPTO is 10/089,153. Please ensure that the correct U.S. Serial Number for this application is cited in all future correspondence with this Office.
3. The assigned Art Unit location of your application in the USPTO is 1651. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Art Unit 1651.
4. The assigned Examiner to your application in the USPTO is Dr. Kailash C. Srivastava. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Examiner Kailash C. Srivastava in Art Unit 1651.

### **Claims Status**

5. Claims 4, 7-8, 10, 13-15, 17, 21-23, 25-26, 31-32, 34-35, 47, 49, 52-53, 55, 59-62, 66 and 69-70 have been amended.
6. Claims 1- 70 are pending.

### ***Election /Restriction***

7. This application contains the following groups of inventions, which are not so linked as to form a single general inventive concept under PCT Rule 13.1. Restriction to one of the following inventions is required under 35 U.S.C. 121 and 372.
  - Group I, consisting of claims 1-34, drawn to a method to culture cells on a semipermeable substrate, wherein said substrate is permeable to nutrients but not permeable to at least one protein.
  - Group II, consisting of claims 35-44, drawn to a method to expand cells, wherein cells are haematopoietic or immune cells transduced with at least one retroviral gene transfer vector.
  - Group III, consisting of claims 45-70, drawn to a bioreactor for growth and proliferation of cells.

8. The inventions listed as Groups I-III do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

The special technical features of the invention in groups I-II are methods, whereas technical features of inventions in Group III is an apparatus that encompasses features entirely different than the claimed invention in Groups I-II. None of the inventions in Groups I-II share the same or similar technical feature/ characteristics of invention in Group III. Furthermore, the invention in Group I does not share the technical feature of Group II, because claims en-grouped in invention encompassing Group II are drawn to expansion of cells to generate haematopoietic or immunogenic cells. Additionally, inventions encompassed in Groups I-III do not provide a contribution over the prior art as evidenced by for e.g., Yoshimoto et al. (U.S. Patent 4,789,658), Aebischer et al. (US Patent 5,156,844) and Wright et al. (US Patent 6,593,123) because the cited prior arts discuss methods to grow cells, for e.g., neutrophils and apparatus to cultivate and expand a variety of cells in bioreactors/hollow-fiber membrane reactors (U.S. Patents 4,910,139 and 4,440,853). Since no special technical feature exists among the inventions in groups I-III, there is no unity of invention.


9. Applicants are advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement is traversed (37 CFR §1.143) and a listing of all claims readable thereon, including any claims subsequently added. If claims are added after the election, Applicants must indicate which are readable upon the elected invention [MPEP§ 809.02(a)]. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election. Upon the allowance of a generic claim, Applicants will be entitled to consideration of claims which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR §1.141.


10. Applicants are reminded that upon the cancellation of claims to a non-elected invention and species, the inventorship must be amended in compliance with 37 CFR §1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR §1.48(b) and by the fee required under 37 CFR §1.17(I).

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Kailash C. Srivastava whose telephone number is (571) 272-0923. The examiner can normally be reached on Monday to Thursday from 7:30 A.M. to 6:00 P.M. (Eastern Standard or Daylight Savings Time).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Wityshyn, can be reached on (571)-272-0926 Monday through Thursday. The fax phone number for the organization where this application or proceeding is assigned is (571)-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding may be obtained from the Patent Application Information Retrieval (i.e., PAIR) system. Status information for the published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (i.e., EBC) at: (866)-217-9197 (toll-free). Alternatively, status inquiries should be directed to the receptionist whose telephone number is (703) 308-0196.

  
Karilash C. Srivastava, Ph.D.  
Patent Examiner  
Art Unit 1651  
(571) 272-0923  
March 16, 2005

  
RALPH GITOMER  
PRIMARY EXAMINER  
GROUP 1200